

Figure A1. Additional Files. Protein clusters representing distinct innate immunity pathways or distinct cell types released into urine via vascular injury or exfoliation of epithelial cells

Protein clusters representing distinct innate immunity pathways (neutrophil activation and degranulation, complement system activity and coagulation) or distinct cell types released into urine via vascular injury or exfoliation of epithelial surface cells (erythrocytes, squamous epithelium of vagina / urethral meatus). Protein clusters resulting from Hierarchical Clustering Analysis of urinary proteomic data from 110 samples using the Pearson correlation metric. The software tool used for the analyses was the Multiple Experiment Viewer (MeV) described in the method section. The parameters used were: selection of Gene and Sample Trees; optimized for Gene Tree Order; Absolute Distance Metric and Complete Linkage Clustering. The clusters depicted in the images below are

Cluster A. A cluster enriched for antibacterial and inflammatory proteins released from activated neutrophils (eosinophil cationic protein; myeloperoxidase; lactotransferrin; neutrophil defensin 1; histone H2B; Histone H3.1; cathepsin G; protein S100-A8)

Cluster B. A cluster enriched for immune defense proteins released from activated neutrophil granules (chitinase-3-like protein; neutrophil collagenase; neutrophil gelatinase-associated lipocalin; cathelicidin; plastin-2; cytochrom b-245 light chain; myeloblastin; protein S100-A12; protein-arginine deiminase type-4)

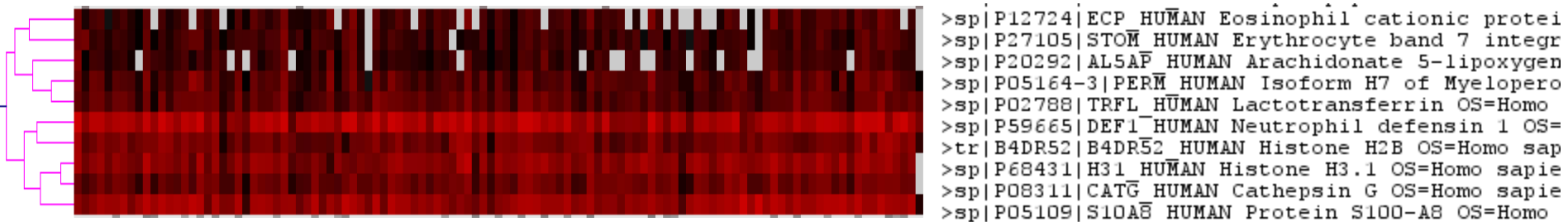
Cluster C. A cluster of proteins whose expression is enriched in stratified squamous epithelium (e.g. the vagina): cornulin, cytoskeletal 1 keratin type II, cytoskeletal 4 keratin type II, small proline-rich protein 3; small proline-rich protein 2G, cornifin-B; cellular retinoic acid-binding protein 2

Cluster D. A cluster of nineteen proteins derived specifically from the expression in erythrocytes

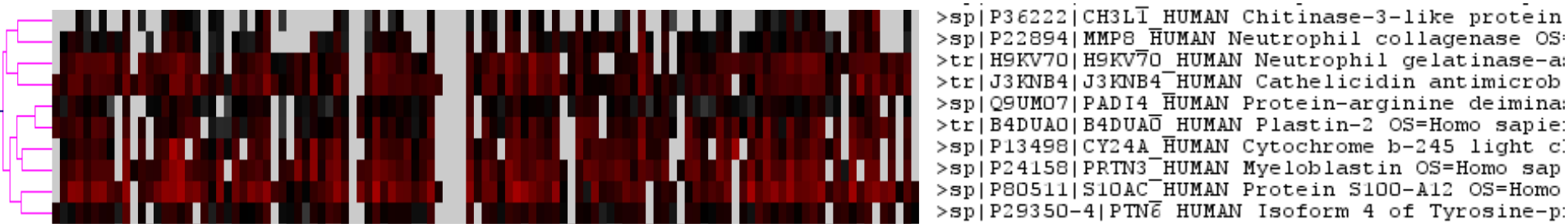
Cluster E. A cluster of proteins associated with the complement system and coagulation: complement components (C6, C1r, C8 alpha chain, C7, C4 beta chain, C3, C4b-binding protein, factor H, factor B, C8 gamma-chain, C8-beta chain); proteins part of or interacting with the coagulation cascade (inter-alpha-trypsin inhibitor heavy chain H1, inter-alpha-trypsin inhibitor heavy chain H1, fibronectin, prothrombin, heparin cofactor II, alpha-2-antiplasmin, coagulation factor XII, kallistatin; apolipoprotein A-II)

Figure A1, continued.

Protein Cluster A. A cluster enriched for antibacterial and inflammatory proteins released from neutrophils and eosinophils (eosinophil cationic protein; myeloperoxidase; lactotransferrin; neutrophil defensin 1; histone H2B; Histone H3.1; cathepsin G; protein S100-A8)



Protein cluster B. A cluster enriched for immune defense proteins released from neutrophil granules upon activation (chitinase-3-like protein; neutrophil collagenase; neutrophil gelatinase-associated lipocalin; cathelicidin; plastin-2; cytochrome b-245 light chain; myeloblastin; protein S100-A12; protein-arginine deiminase type-4)

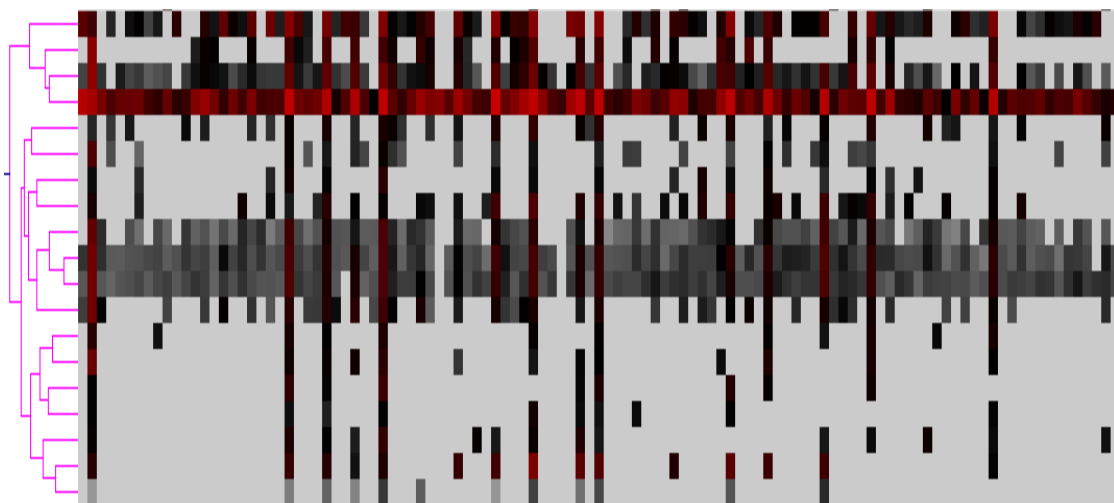


Protein cluster C. A cluster of proteins whose expression is enriched in stratified squamous epithelium (e.g. the vagina): cornulin, cytoskeletal 1 keratin type II, cytoskeletal 4 keratin type II, small proline-rich protein 3; small proline-rich protein 2G, cornifin-B; cellular retinoic acid-binding protein 2



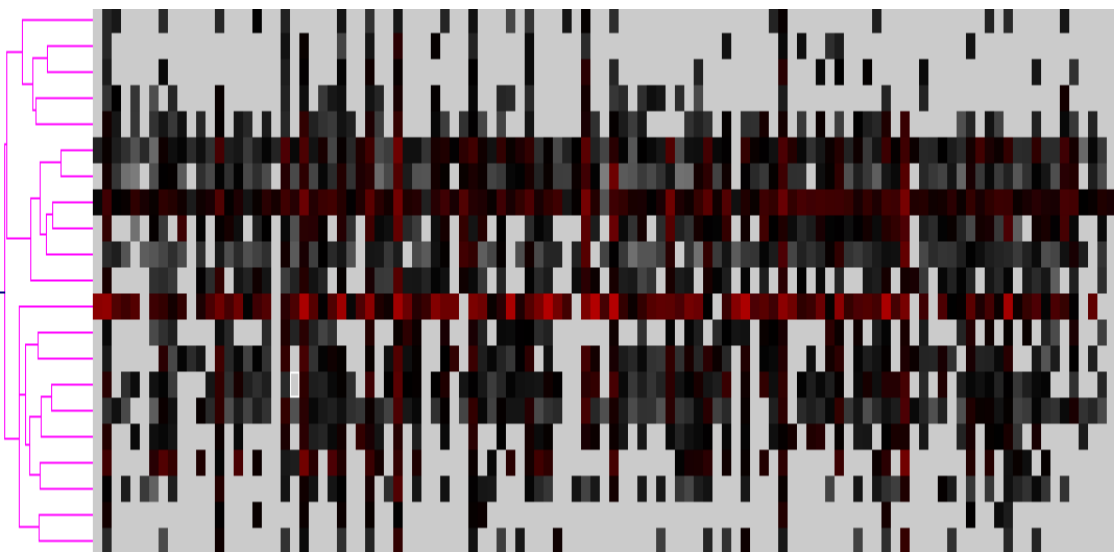
Figure A1, continued.

Protein cluster D. A cluster of nineteen proteins derived specifically from the expression in erythrocytes



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>sp|P00915|CAH1_HUMAN Carbonic anhydrase 1 OS=H
">sp|P11166|GTR1_HUMAN Solute carrier family 2,
>sp|P02730|B3AT_HUMAN Band 3 anion transport pr
>sp|P69905|HBA_HUMAN Hemoglobin subunit alpha OS
>sp|Q13228|SBP1_HUMAN Selenium-binding protein
>sp|Q00013|EM55_HUMAN 55 kDa erythrocyte membra
>sp|P48506|GSH1_HUMAN Glutamate--cysteine ligase
>sp|P07738|PMGE_HUMAN Bisphosphoglycerate mutase
>sp|P16157-14|ANK1_HUMAN Isoform Er13 of Ankyrin
">sp|P02549|SPTA1_HUMAN Spectrin alpha chain, ei
">sp|P11277-2|SPTB1_HUMAN Isoform 2 of Spectrin
>sp|P16452-2|EPB42_HUMAN Isoform Long of Erythro
>sp|Q9Y3I1|FBX7_HUMAN F-box only protein 7 OS=H
>tr|Q5VSJ9|Q5VSJ9_HUMAN Blood group Rh(CE) poly
>sp|Q9BS40|LXN_HUMAN Latexin OS=Homo sapiens GN
>sp|P08397|HEM3_HUMAN Porphobilinogen deaminase
>sp|P09105|HBAT_HUMAN Hemoglobin subunit theta-
>tr|E9PBW4|E9PBW4_HUMAN Hemoglobin subunit gamma
>sp|Q8WZ42-12|TIT1_HUMAN Isoform 12 of Titin OS
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Protein cluster E. A cluster of proteins associated with the complement system and coagulation: complement components (C6, C1r, C8 alpha chain, C7, C4 beta chain, C3, C4b-binding protein, factor H, factor B, C8 gamma-chain, C8-beta chain); proteins part of or interacting with the coagulation cascade (inter-alpha-trypsin inhibitor heavy chain H1, inter-alpha-trypsin inhibitor heavy chain H1, fibronectin, prothrombin, heparin cofactor II, alpha-2-antiplasmin, coagulation factor XII, kallistatin; apolipoprotein A-II)



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>sp|P13671|C06_HUMAN Complement component C6 OS
>sp|P00736|C1R_HUMAN Complement C1r subcomponent
>sp|P07357|C08A_HUMAN Complement component C8 a
>sp|P10643|C07_HUMAN Complement component C7 OS
>sp|P19823|ITI2_HUMAN Inter-alpha-trypsin inhibitor
>tr|BOUZ83|BOUZ83_HUMAN Complement C4 beta chain
>sp|P02751|F1NC_HUMAN Fibronectin OS=Homo sapiens
>sp|P01024|C03_HUMAN Complement C3 OS=Homo sapiens
>sp|P04003|C4BPA_HUMAN C4b-binding protein alpha
>sp|P08603|CFAH_HUMAN Complement factor H OS=Homo
>sp|P19827|ITI1_HUMAN Inter-alpha-trypsin inhibitor
>sp|P02042|HBD_HUMAN Hemoglobin subunit delta C
>sp|P29622|KAI1_HUMAN Kallistatin OS=Homo sapiens
>sp|P00734|THR2_HUMAN Prothrombin OS=Homo sapiens
>sp|P05546|HEP2_HUMAN Heparin cofactor 2 OS=Homo
>tr|B4E124|B4E124_HUMAN Complement factor B OS=Homo
>sp|P08697|A2AP_HUMAN Alpha-2-antiplasmin OS=Homo
>sp|P02652|APOA2_HUMAN Apolipoprotein A-II OS=Homo
>sp|P07358|C08B_HUMAN Complement component C8 b
>sp|P07360|C08G_HUMAN Complement component C8 g
>sp|P00748|FA12_HUMAN Coagulation factor XII OS
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